

DETAILED ACTION

1. This action is responsive to the Applicant's response filed 4/08/09.

As indicated in Applicant's response, and as amended, claims 1, 3-11, 13, 15-23, 25-26, 28, 31-34, 36 are pending in the office action.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3. Authorization for this examiner's amendment was given in a telephone interview with Greg Caldwell, Reg. # 39,926 on 6/19/09.

The application has been amended as follows.

In the CLAIMS:

A) The claims have been amended according to the herein attached Amendment, namely, "Supplemental Amendment and Response", provided as file "AmendM_062009.pdf"

B) In the above attached Amendment, some minor corrections are required as follows:

Claim 22 (line 1)

The medium of claim [[21]] 13, [[further]] wherein determining the minimum number of cycles further comprises:

Claim 25 (line 3)

a front end, implemented within a computer of said apparatus, to receive a source code; and

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

4. Claims 1, 4-8, 10-11, 13, 16-20, 22-23, 25-26, 28, 31-34, 36 are allowed.

The following is an examiner's statement of reasons for allowance.

The prior art taken separately or jointly does not suggest or teach the following features.

A method or product for program scheduling comprising (i) in a given cycle of a scheduling region, based on a maximum number of instructions that can be scheduled in the given cycle, determining a new slack value on said maximum number, wherein determining the new slack value includes: determining a minimum number of cycles needed to schedule each instruction in the region, (ii) determining a resource deadline based on the resource height and the minimum number of cycles, wherein the resource height is based on each resource availability for each instruction type to which each instruction belongs; and (iii) determining a dependence deadline based on a dependence height and the minimum number of cycles, wherein the dependence height is based on a total height of a sub-graph of a dependence graph of the scheduling region, and wherein the sub-graph comprises one or more nodes to represent directly and indirectly dependent instructions of each instruction; as recited in claims 1, 13, 25 and 32.

Kumar, USPN: 7,007,271, does not teach scheduling based on instruction region and instruction cycle, and calculating a new slack value for a maximum number of instruction that are schedulable using a minimum number as in (i) and computing resource deadline and dependence deadline for creating the slack value as in (ii) and (iii).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571)272-3759.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 (for non-official correspondence - please consult Examiner before using) or 571-273-8300 (for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan A Vu/

Primary Examiner, Art Unit 2193

June 20, 2009